Amendments to the Drawings

The attached sheets of drawings include changes to FIGS. 1–3. These sheets replace the original sheets. In FIG. 1, the reference number and lead line 19 is being added; in FIG. 2, a hole on each side of the piezoelectric ring disc 5 is being shown, and the reference number and lead line 20 is being added to each hole; and in FIG. 3, the piezoelectric ring disc 5 is being shown with a concave shape.

REMARKS/ARGUMENTS

Claims 17–36 are pending in the application, claims 21–23 are withdrawn from consideration, claims 17–20 and 24–36 are rejected, claim 32 is being canceled, and claim 37 is being added.

Drawings

The drawings were objected to under 37 CFR 1.83(a). In response, the Applicant is adding lead line 19 in FIG. 1 to identify the abutment, and is amending paragraph [0050] in the specification accordingly. The Applicant is also showing concavity to the piezoelectric ring disc 5 in FIG. 3, and is amending paragraph [0037] accordingly. The Applicant notes that the concavity is an option that may also be incorporated in the embodiments of FIGS. 1 and 2. Further, the Applicant is showing a hole 20 on each side of the piezoelectric ring disc 5 in FIG. 2, and is amending paragraph [0055] accordingly. Again, the Applicant notes that the holes are an option that may also be incorporated in the embodiments of FIGS. 1 and 3. No new matter is being entered with any of these changes. The Applicant respectfully requests withdrawal of this objection.

The drawings were also objected to because elements 12, 13, and 16 (the Applicant points out 18 too) are each referred to as "part" in the specification. In response, the Applicant is modifying the specification to indicate that parts referenced 12, 13, 16, and 18 are different parts by adding first, second, third, and fourth before the respective reference number. This is not new matter because, as filed, the different parts had different reference numbers with different lead lines. Thus, the Applicant believes that no change to the drawings is necessary and respectfully requests withdrawal of this objection.

Claim Rejections — 35 U.S.C. § 112

Claim 32 was rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Applicant is canceling claim 32 so this rejection is now moot.

Claim 29 and 31 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter applicant regards as the invention. In response, the Applicant is changing the

dependencies from claim 17 to claim 19. The antecedents are now supported, and thus the Applicant now believes that claim 29 and 31 are acceptable.

Claim Rejections — 35 U.S.C. §§ 102(a) and (e)

Claims 17 and 31 were rejected under 35 U.S.C. §§ 102(a) and (e) as being anticipated by Cotton, III et al. (U.S. Pub. No. 2003/0226988). The rejection is respectfully traversed for the reasons discussed below.

The Applicant is amending claim 17 to recite, *inter alia*, "...the piezoelectric portion having a plurality of holes formed therein which allow the passage of fluid through the piezoelectric portion during use of the valve when the first valve member is in the first valve member open position in order to reduce resistance of the piezoelectric portion to movement thereof." Cotton et al. does not identically disclose this subject matter. This subject matter is supported in paragraphs [0041], [0055], and [0056], and was recited in originally-filed claim 16. Thus, the Applicant respectfully submits that claim 17 patentably defines over Cotton et al.

Claim 31 is ultimately dependent on claim 17 and should be allowed for at least the reasons stated for claim 17.

Claim Rejections — 35 U.S.C. § 103

Claims 17–20, 24–36 were rejected under 35 U.S.C. 103(a) as being unpatentable over Tsutsui et al. (U.S. Pat. No. 4,989,27) in view of Meckstroth (U.S. Pat. No. 4,561,627).

As noted above, claim 17 recites, *inter alia*, "...the piezoelectric portion having a plurality of holes formed therein which allow the passage of fluid through the piezoelectric portion during use of the valve when the first valve member is in the first valve member open position in order to reduce resistance of the piezoelectric portion to movement thereof." Neither Tsutsui et al. or Meckstroth identically disclose or suggest this subject matter. Thus, the Applicant respectfully submits that claim 17 patentably defines over Tsutsui et al. and Meckstroth.

Claims 18–20 and 24–31 depend from claim 17 and should be allowed for at least the reasons stated for claim 17.

The Applicant is amending claim 33 to recite, *inter alia*, "...wherein the first valve member is further defined by an axial cavity...the high pressure chamber being formed in part by the axial cavity...." Neither Tsutsui et al. or Meckstroth identically disclose or suggest this subject matter. Thus, the Applicant respectfully submits that claim 33 patentably defines over Tsutsui et al. and Meckstroth.

Claims 34–36 depend from claim 33 and should be allowed for at least the reasons stated for claim 33.

New Claim

The Applicant is adding new claim 37 and believes that none of the references of record identically disclose or suggest the subject matter of claim 37. No new matter is being entered with this claim.

Conclusion

In view of the foregoing, Applicant respectfully submits that all claims are in condition for allowance. Reconsideration is therefore requested. The Examiner is invited to telephone the undersigned if doing so would advance prosecution of this case.

No fees are believed due. However, the Commissioner is hereby authorized to Charge Deposit Account No. 50-0852 for any required fees, or to credit any overpayment associated with this communication.

Respectfully submitted,

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